FILED WITH
Executive Secretary

August 21, 2013

IOWA UTILITIES BOARD

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August 21, 2013

Ms. Joan Conrad, Executive Secretary
Iowa Utilities Board
1375 East Court Avenue, Room 69
Des Moines, IA 50319-0069

RE: Interstate Power and Light Company
Docket No. EEP-2012-0001
Brief

Dear Secretary Conrad:

Enclosed please find Interstate Power and Light Company's Brief in the above-referenced docket, as filed today on EFS.

Very truly yours,

/s/ Paula N. Johnson
Paula N. Johnson
Senior Attorney - Regulatory

PNJ/kjf
Enclosure

FILED WITH
Executive Secretary
August 21, 2013
IOWA UTILITIES BOARD

STATE OF IOWA

BEFORE THE IOWA UTILITIES BOARD

IN RE: **INTERSTATE POWER AND LIGHT COMPANY**	**DOCKET NO. EEP-2012-0001**

BRIEF OF

INTERSTATE POWER AND LIGHT COMPANY

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For Interstate Power and Light Company

August 21, 2013

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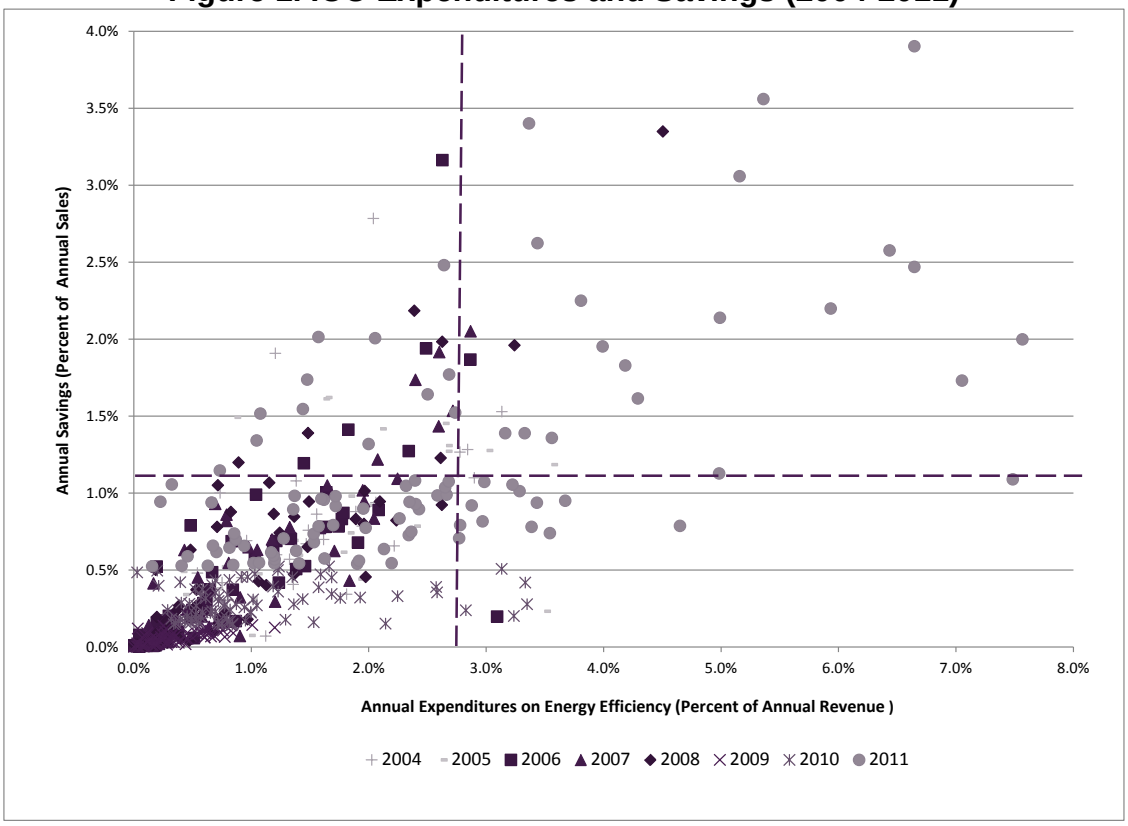
I. EXECUTIVE SUMMARY

On November 30, 2012, Interstate Power and Light Company (IPL) submitted its 2014-2018 Energy Efficiency Plan (EEP) (subsequently revised as noted later in this brief, and as modified by settlement, also described below) to the Iowa Utilities Board (Board) for its consideration. IPL's 2014-2018 EEP is comprehensive, cost-effective and balanced, and focuses on market-ready technologies through 25 electric and natural gas energy-efficiency and electric demand response programs for all of IPL's business, agricultural and residential customers. The 2014-2018 EEP extends the savings targets for programs in the 2009-2013 EEP, introduces enhancements to individual programs, where warranted, and incorporates new programs and initiatives, offering a suite of electric and natural gas energy-efficiency products and services to all customer segments. IPL plans to achieve these savings targets by: enhancing its already robust outreach, marketing, and education efforts; offering strong incentives for measures with the highest, cost-effective achievable savings potential; targeting both established and new sources of savings potential; and streamlining customer delivery and administrative processes to achieve greater operational efficiencies.

For more than 20 years, energy efficiency has been integral to IPL's commitment to provide its customers with high-quality, low-cost and reliable energy services. The American Council for an Energy-Efficient Economy's (ACEEE) October 2012 report, entitled, "The 2012 State Energy Efficiency Scorecard" (2012 Scorecard) ranked Iowa 11th in the nation for its overall efficiency efforts. (IPL Exhibit No. 2.) Further, as noted by Dr. Haeri, an examination of United States Energy Information Association (EIA)

information shows that, "of the 530 records of reported savings, only in 65 cases (12 percent) were there reported savings of equal to or greater than 1.1 percent of annual retail sales in any year," the same savings goal IPL has set for its 2014-2018 EEP. (Tr. 298-299.) As demonstrated by Figure 1 in Dr. Haeri's Rebuttal Testimony, reproduced below, IPL's proposed annual electric savings target of 11 percent of retail sales, together with its projected expenditures of 2.7 percent of annual revenue, would place IPL among the top 25 utilities having achieved savings at this level since 2004." (Tr. 299.)

Figure 1. IOU Expenditures and Savings (2004-2011)



(*Id*.)

Additionally, the ACEEE's 2012 Scorecard listed only nine states, other than Iowa, that achieved electric savings or more than one percent of retail sales. (Tr. 299-300.) As noted by Dr. Haeri, "In 2010, only four of those states achieved electricity

savings at that level." (Tr. 300.) In other words, IPL's electric savings target of 1.1 percent already represents an ambitious goal "rarely achieved by other IOUs in this country." (*Id*.)

IPL has been recognized in recent years for its energy efficiency and demand response efforts. Specifically, IPL has received the Iowa Governor Environmental Excellence Award presented by the Iowa Department of Natural Resources for energy efficiency as well as awards from the Midwest Energy Efficiency Alliance (MEEA), ENERGY STAR®, the Peak Load Management Alliance (PLMA), and Chartwell Inc. (Tr. 51.)

IPL's experience, leadership and success with delivering cost-effective energy efficiency programs are key drivers in the state's recognized success in overall energy efficiency accomplishments. IPL is proud to continue to play a leading role in the successful delivery of energy efficiency in Iowa.

Throughout its history of vigorous outreach and implementation of energy efficiency efforts, IPL has designed and deployed a broad range of energy efficiency management programs and services, providing numerous energy efficiency options for its varied customers' needs, which have resulted in substantial benefits for its customers, as well as to the state of Iowa through societal benefits. IPL has maintained flexible programs, measures, incentives and eligibility criteria during each plan to accommodate the evolving energy-efficiency market, capture new opportunities, and further ensure EEP success. IPL has pioneered the implementation of many programs, incentive measures and delivery mechanisms in the State of Iowa. From 1999 through 2012, IPL's programs have resulted in cumulative electricity savings of 1.6 million MWh

and natural gas savings of 38 million therms. (Tr. 51-52.) Additionally, since 1999, IPL has met or exceeded its electric energy savings goals for 11 years and its natural gas savings goals for six years. (Tr. 52.) For the 2014-2018 period IPL builds on its long-term success in implementing energy efficiency programs with its proposed 2014-2018 EEP, as modified through settlement.

IPL has designed its 2014-2018 EEP to be comprehensive, cost-effective and balanced, building on the experiences and successes from its previous EEPs, while cognizant of the impact to customer bills.

II. PROCEDURAL HISTORY

On June 24, 2009, the Board issued an order in Docket No. EEP-08-01 directing IPL to file its 2014-2018 EEP on or before December 1, 2012. On November 30, 2012, IPL filed its proposed 2014-2018 EEP, which included the sponsoring direct testimony of Jeanine A. Penticoff.

On December 21, 2012, the Environmental Law & Policy Center, Iowa Environmental Council, and Iowa Policy Project (collectively Environmental Intervenors) filed their application to intervene. On January 2, 2013, the Board issued the order granting the requested intervention to the Environmental Intervenors.

On December 26, 2012, the Board issued an Order docketing IPL's 2014-2018 EEP, setting an intervention deadline, establishing the procedural schedule, and requiring IPL to file additional information. On January 9, 2013, IPL and the Environmental Intervenors filed a motion to extend the procedural schedule by 10 days for additional information, and by at least 30 days for all other procedural schedule filing

deadlines. On January 15, 2013, the Board issued an order extending the procedural schedule. IPL filed the additional information, which included a revision of the 2014-2018 EEP (Revised 2014-2018 EEP) in the format directed by the Board, on January 25, 2013.

On January 29, 2013, Deere & Company (Deere) filed its application to intervene. On March 18, 2013, the Iowa Customers for Energy Efficiency (ICEE) filed its application to intervene. On March 28, 2013, the Winneshiek Energy District (WED) filed its application to intervene. Lastly, on April 1, 2013, the Sustainable Living Coalition (SLC) filed its application to intervene. On February 1, March 28 and April 3, 2013, the Board issued orders granting the applications to intervene for Deere, ICEE, WED and SLC.

On April 16, 2013, in accordance with the new procedural schedule, the Environmental Intervenors, ICEE, WED, and the Office of Consumer Advocate (OCA) all filed direct testimonies. On April 30, 2013, the OCA, ICEE, and the Environmental Intervenors filed rebuttal testimonies to each other's direct testimonies. On June 4, 2013, IPL filed rebuttal testimonies authored by: Ms. Penticoff; Bonnie F. Donnolly; Dr. M. Hossein Haeri; David Vognsen; and Kimberly G. King. On June 11, 2013, the OCA, Environmental Intervenors, ICEE, and WED filed their surrebuttal testimonies.

Previously, on April 25, 2013, the Environmental Intervenors filed a motion to compel discovery responses from the ICEE. On April 26, 2013, the Board ordered an expedited schedule for response, and did not grant an extension of rebuttal testimony. ICEE filed a response on April 29, 2013, which included a request to present oral argument before the Board or an administrative law judge (ALJ). The Environmental

Intervenors filed a reply on May 1, 2013. On May 2, 2013, the Board issued an order assigning the motion to compel discovery to an ALJ for resolution, and on May 6, 2013, the ALJ issued an order for a prehearing conference on May 9, 2013. The Environmental Intervenors and the ICEE both filed additional written arguments and a statement regarding the disputed data requests on May 15, 2013. On May 22, 2013, the ALJ issued a ruling on the motion to compel, which granted the motion in respects to data requests 3, 4, and 7(b), and granted the motion in part for data request 8. The ALJ denied the motion for data request 2, and in part for data request 8. On June 3, 2013, ICEE filed a notice of appeal related to the ALJ's ruling on the motion to compel. On June 5, 2013, the Environmental Intervenors responded to the notice of appeal. On June 6, 2013, ICEE responded to the Environmental Intervenors' response. On June 7, 2013, the Board affirmed the ALJ's ruling on the motion to compel.

In relation to the motion to compel, the ICEE clarified the direct testimony of Maurice E. Brubaker on May 14, 2013. Through a motion to clarify, the ICEE amended Mr. Brubaker's testimony. On May 20, 2013, the OCA filed a response to the ICEE's motion to amend, which requested the Board grant intervenors the opportunity to respond to the amended testimony. On May 24, 2013, the Board issued an order granting ICEE's motion to amend Mr. Brubaker's testimony, and allowing intervenors to file responsive testimony on or before June 11, 2013. On June 11, 2013, responsive testimony was submitted by Mr. Geoffrey Crandall for the Environmental Intervenors and Andrew Johnson for WED. That same day, the OCA submitted the expanded testimony of Dr. Xiaochuan (Larry) Shi addressing issues not raised in his Direct Testimony submitted earlier in the docket. The Board, by order dated June 18, 2013,

allowed IPL to submit additional testimony in response to Dr. Shi's expanded testimony. IPL submitted supplemental rebuttal testimony by Mr. Vognsen, as allowed by the Board's June 18th Order, on June 27, 2013.

On June 18, 2013, IPL, the OCA, ICEE, Environmental Intervenors and WED submitted a Joint Statement of Issues to guide the Board's analysis of, and decision in, this docket. On July 25, 2013, IPL, the OCA, ICEE and Environmental Intervenors submitted a Non-Unanimous Partial Settlement Agreement (Settlement), based on the Joint Statement of Issues, which presented numerous proposed resolutions to many of the issues presented in the Joint Statement of Issues, and agreed to by two or more parties to the Settlement.

The Board scheduled a hearing date of July 29, 2013, and heard testimony regarding the issues not addressed by partial Settlement, as well as the contested Settlement terms. The hearing was conducted as scheduled and concluded on July 30, 2013.

On July 31, 2013, the Board issued its Order Setting Dates for Settlement Comments, in which the Board determined the parties could address the Settlement concurrently with their post-hearing briefs due August 21, 2013. The Board further allowed for responses to Settlement comments by August 28, 2013.

III. STATEMENT OF ISSUES

The following issues were presented to the Board for resolution, as commemorated by certain parties in the Joint Statement of Issues submitted to the Board on June 18, 2013:[1]

1. *Whether the EEP as a whole[2] is cost-effective under the societal test, utility cost test, rate-payer impact test, and participant test, pursuant to Iowa Code § 476.6(14);
2. *Whether the EEP meets the plan requirements set forth in 199 IAC 35.8, 199 IAC 35.9, and 199 IAC 35.10;
3. **Whether IPL recognizes the appropriate amount of achievable economic potential pursuant to the 2012 Statewide Assessment of Energy and Capacity Savings Potential in Iowa (Statewide Assessment);
    a. Whether the Statewide Assessment is accurate and complete;
    b. Whether IPL should recognize a higher level of potential;
        i. If IPL recognized a higher level of potential, the impact this would have on its customers;
        ii. If IPL recognized a higher level of potential, the impact this would have on its resource planning;
4. **Whether IPL's proposed annual savings targets are appropriate;
5. **Whether IPL's proposed energy efficiency programs and budgets are appropriate to achieve those energy savings, and whether supplemental performance-based criteria appropriate to help maximize achievement of cost-effective energy efficiency opportunities are needed;

[1] One asterisk (*) indicates that the issue was not settled. Two asterisks (**) indicates that the issue was partially settled. Due to the non-unanimous nature of the settlement, and the complexity regarding the various parties' positions on each settlement term, IPL addresses those specifics later in this brief.

[2] The statute does not require that the following energy efficiency programs be cost-effective, and provides that they shall not be considered in determining the cost-effectiveness of an EEP as a whole: programs for low-income persons; tree planting programs; educational programs; and assessments of consumers' needs for information to make effective choices regarding energy use and energy efficiency.

6. **Whether IPL's proposed energy efficiency programs demonstrate a sufficient level of consistent and sustained coordination, such that there is integrated and systematic and cost-effective implementation of energy efficiency measures within and across program sectors;

7. **Whether IPL has proposed an appropriate plan and budget for the evaluation, measurement and verification of its EEP;

8. **Whether technical assistance standards are adequate and effective to achieve high levels of "conversion," or practice implementation, and to adequately attribute practice implementation and savings back to technical assistance provided versus stand-alone prescriptive or custom rebates;

9. **Whether technical assistance (energy auditing, assessments, planning, follow-through) to all customer classes ought to be open to additional qualified energy professionals not currently participating in IPL's EEP;

10. **Whether a more formal collaboration and/or enhanced reporting process for energy efficiency plan performance is warranted;

11. **Whether IPL has proposed appropriate Residential Portfolio Programs, including the potential for stand-alone direct install programming open for implementation by qualified community-level organizations including, but not limited to, Green Iowa Americorps teams and hosts;

12. **Whether IPL has proposed appropriate Nonresidential Portfolio Programs;

13. **Whether IPL has proposed appropriate Outreach, Education and Training Portfolio Programs, including the potential local or community programs including, but not limited to, Green Iowa Americorps teams and hosts for local activities;

14. **Whether IPL has proposed appropriate Demand Response Portfolio programs;

15. *Whether opt-out provisions that would allow customers meeting certain criteria to not participate in or fund utility-sponsored energy efficiency

programs should be made available and whether the Board should institute a rulemaking proceeding to develop the parameters;

16. **Whether the energy efficiency cost recovery factors should be explicitly identified on customers' bills;

17. **Whether IPL should be ordered to track non-residential energy efficiency expenditures by rate class as well as by program;

18. **Whether IPL should revise its Large General Service EECR[3] factors to a two-part EECR factor with a separate demand factor for recovery of costs associated with direct load control and interruptible program costs and an energy-based factor for all other eligible energy efficiency costs;

19. **Whether IPL is appropriately integrating a market transformation approach in its program and, if so, what are the implications of market transformation (e.g., when the market has been transformed via codes and standards or other intervention strategies);

20. **What considerations there should be regarding a technical reference manual, including formulation, consistency among utilities, timing of implementation, and independent oversight process and administration;

21. **What the implications are of, and what consideration should be given to, implementing net-to-gross ratios other than 1.0 for specific programs;

22. **Whether avoided cost timing and/or methodologies should be revised or addressed in this proceeding:

    a. Whether IPL's current avoided cost methodologies are compliant with 199 IAC 35.9(7), 199 IAC 35.10(2) and 199 IAC 35.10(4) and whether changes in methodology are warranted;

    b. whether the identified avoided costs accurately reflect the costs that IPL avoids by implementing energy efficiency and/or customer-sited renewable energy;

[3] Energy Efficiency Cost Recovery.

c. Whether avoided cost determinations should be computed using the same methodology for both EEP development (199 IAC 35.9(7)) and Public Utilities Regulatory Policies Act (PURPA) qualifying facilities pricing (199 IAC 15.5);

d. Whether a change in avoided costs of more than 10-20% during plan implementation should result in an updated screening of energy efficiency programs to consider whether program changes or plan modification are warranted;

23. *Whether IPL's combined heat and power program should: 1) be better defined in IPL's plan to include more specific program information, guidelines, savings targets and incentives; and 2) be expanded;

24. *Whether IPL should be allowed to discontinue its Renewable Energy Portfolio (REP):

a. Whether specific measures in the REP, including solar photovoltaic installations, are cost effective;

b. Whether participation trends in the REP indicate increasing participation;

c. Whether efficiency gaines [*sic*] for utility services and trends are appropriately considered;

d. Whether IPL has options besides discontinuing the program including modifying the program based on past experience and changing markets or continuing the pilot for additional time or funding certain renewables installations (i.e., solar photovoltatic [*sic*]) in whole or in part as a demand reduction/peak load management program;

25. **Whether IPL should include a program or program track targeted at data centers;

26. **Whether IPL should include behavioral programs, such as OPower.

As noted in more detail in the remainder of this brief, most of these issues were addressed by the Settlement entered into by certain parties in this docket. IPL supports the settlement terms contained in the Settlement, and reaffirms as such below as appropriate. Additionally, IPL provides and supports its position on the remaining fully contested issues. IPL identifies below the issues that have been settled with the various parties.

IV. DISCUSSION

A. INTRODUCTION

Throughout its history of vigorous outreach and implementation of energy efficiency efforts, IPL has designed and deployed a broad range of energy efficiency programs for all customers, which have resulted in substantial benefits for its customers and the state of Iowa. IPL has maintained flexible programs, new measures, incentives and eligibility criteria during each plan to accommodate new opportunities, remove customer barriers and further ensuring EEP success.

In the instant docket, IPL has submitted an EEP, subsequently modified by the Settlement,[4] that builds upon the success experienced in Iowa by offering customers a comprehensive portfolio of energy efficiency options that balances the resulting 2014-2018 EEP benefits with the costs to customers. The Iowa Legislature has, after all,

[4] IPL acknowledges that, due to certain revisions made to its 2014-2018 EEP by the Settlement, it may need to submit modified supporting documents to reflect shifts in budgetary requirements and savings impacts. With specific regard to its budgets, IPL does not believe any budget-shifts will be substantive enough to require any re-notification to its customers of potential cost increases that will be passed through the EECR. 199 IAC 35.4(4) "c." Any budgetary shifts should be within a reasonable range of the costs currently contained in the notice provided to IPL's customers via United States mail on November 29, 2012. Please see IPL's "Proof of Mailing" submitted as part of its initial November 30, 2012, application for approval of the 2014-2018 EEP.

mandated Iowa's investor-owned utilities (IOUs) to implement energy efficiency plans that consider multiple perspectives:

> *Energy efficiency plans.* Electric and gas public utilities shall offer energy efficiency programs to their customers through energy efficiency plans. An energy efficiency plan as a whole shall be cost-effective. **In determining the cost-effectiveness of an energy efficiency plan, the board shall apply the societal test, utility cost test, rate-payer impact test, and participant test.** Energy efficiency programs for qualified low-income persons and for tree planting programs, educational programs, and assessments of consumers' needs for information to make effective choices regarding energy use and energy efficiency need not be cost-effective and shall not be considered in determining cost-effectiveness of plans as a whole. The energy efficiency programs in the plans may be provided by the utility or by a contractor or agent of the utility. Programs offered pursuant to this subsection by gas and electric utilities that are required to be rate-regulated shall require board approval.

(Emphasis added.) (Iowa Code § 476.6(14).)

IPL's proposed 2014-2018 EEP, as modified by Settlement, accomplishes these goals established by the Iowa legislature. IPL, the signatories, and even the non-signatory parties, expended considerable time and effort to reach a reasonable compromise on many of the issues contained in the Joint Statement of Issues as possible. The Board may approve the Settlement if it "is reasonable in light of the whole record, consistent with law, and in the public interest." 199 IAC 7.18. IPL avers that the Settlement is indeed a reasonable resolution, presenting well-reasoned compromises that are consistent with law and further the public interest. IPL therefore requests that the Settlement be approved, as discussed in more detail below.

B. ARGUMENT ON THE SPECIFIC ISSUES

Through its order issued July 31, 2013, the Board has allowed the parties to this docket to address the provisions of the Settlement at the same time as they submit their

post-hearing briefs. IPL strongly believes that the Settlement, which was structurally based on the Joint Statement of Issues, presents a reasonable compromise on the issues for which settlement could be reached with the agreeing parties. IPL has therefore structured this brief in the same form as the Joint Statement of Issues and the Settlement. IPL will address the non-settled and settled issues through this format, and, because of its firm support for the Settlement, it will address its settlement position rather than its originally-filed position where appropriate.

1. Whether the EEP as a whole is cost-effective under the societal test, utility cost test, rate-payer impact test, and participant test, pursuant to Iowa Code § 476.6(14).

As noted in the Settlement, Issue No. 1 is not in contention on the merits; rather, the Parties dispute whether other possible formulations of a cost-effective EEP may provide greater benefits for customers. Deere has not taken a position on this settled term.

Iowa Code § 476.6(14) requires that, "In determining the cost-effectiveness of an energy efficiency plan, the board shall apply the societal test, utility cost test, rate-payer impact test, and participant test." This variety of tests helps provide a broad perspective of the costs and benefits of a proposed energy efficiency plan. Table 1 below demonstrates these various perspectives revealed through the provision of these ratios.

Table 1 – Demonstration of Cost and Benefit Components by Perspective

Perspective (Test)	**Cost Components**				**Benefit Components**			
	Program Costs (Admin)	Customer Rebates/Incentives	Utility Revenue Decrease	Partici-pant Incre-mental Costs	Savings in Utility Fuel $	Avoided Plant Invest-ment	Customer Rebate/ Incentive	Customer Utility Bill Reduc-tion
Participant				**X**			**X**	**X**
Ratepayer	**X**	**X**	**X**		**X**	**X**		
Utility	**X**	**X**			**X**	**X**		
Societal	**X**			**X**	**X**	**X**		

No party appears to contend that IPL has not met the requirements of Iowa Code § 476.6(14). Rather, certain parties appear to argue that IPL could have formulated a different 2014-2018 EEP portfolio to produce augmented results. Because no party disputes that the 2014-2018 EEP complies with Iowa Code § 476.6(14), the Board should determine that the 2014-2018 EEP is cost-effective pursuant to the societal cost test, while providing the required analysis from the utility, participant and rate-payer impact tests.

2. Whether the EEP meets the plan requirements set forth in 199 IAC 3 5.8, 199 IAC 35.9, and 199 IAC 35.10.

IPL notes that Issue No. 2 does not appear to be in contention on the merits between the various parties. IPL, the OCA, and the ICEE specifically indicated this to be the case in the Settlement, while Deere took no position. While the Environmental Intervenors specifically objected to this issue in the Settlement, they have offered no substantive argument that IPL has failed to meet the requirements of 199 IAC 35.8,[5] 199 IAC 35.9 or 199 IAC 35.10. By contrast, as elaborated upon later in this brief, it is the Environmental Intervenors who have failed to comply with the provisions of 199 IAC Chapter 35.

3. Whether IPL recognizes the appropriate amount of achievable economic potential pursuant to the 2012 Statewide Assessment of Energy and Capacity Savings Potential in Iowa (Statewide Assessment).

a. Whether the Statewide Assessment is accurate and complete;

b. Whether IPL should recognize a higher level of potential;

i. If IPL recognized a higher level of potential, the impact this would have on its customers;

ii. If IPL recognized a higher level of potential, the impact this would have on its resource planning;

Issue No. 3 has been resolved between IPL and the OCA through the negotiation of the Settlement. The Environmental Intervenors object to this Settlement term, while the ICEE and Deere have taken no position.

IPL has presented a well-conceived, cost-effective, well-balanced, comprehensive and fair 2014-2018 EEP for the Board's consideration, and has

[5] IPL notes that only programs exempt from the cost-effective test are low income programs and tree-planting programs. (199 IAC 35.8(2)"a.")

amplified these characteristics through the Settlement. Specifically, IPL's 2014-2018 EEP is:

- Well-conceived -- The 2014-2018 EEP not only draws upon the Statewide Assessment and its 2012 evaluation results, but also incorporates lessons learned from IPL's experience and attempts to improve on those experiences and draws on the experiences of other utilities offering similar programs in other jurisdictions. (Tr. 292.)
- Cost-effective – As represented in its overall analyses, IPL has presented a 2014-2018 EEP that demonstrates an overall positive net benefit. (2014-2018 EEP, Appendix K.)
- Flexible – IPL retains sufficient flexibility to accommodate programmatic implementation changes over the course of the 2014-2018 period. (Tr. 79.)
- Well-balanced – IPL's 2014-2018 EEP offers a combination of electric and natural gas energy efficiency and conservation and peak load management (demand response, or "DR") options. (Tr. 10.)
- Comprehensive – The 2014-2018 EEP incorporates a wide range (25) of energy efficiency and DR programs, supplemented with information and consumer education, and provides incentives for a large number of energy efficiency measures, even before custom measures are taken into consideration. (Tr. 10.)
- Fair – IPL has offered a variety of programs to every segment of IPL's customer base (rate classes, building vintages, and consumer segments). (Revised 2014-2018 EEP, Volume I Book 1 and Book 2.)

Accordingly, IPL has developed its 2014-2018 EEP to include reasonable – and therefore achievable – savings and spending targets. IPL developed this plan based on a "bottom-up" approach that was informed by the Statewide Assessment, IPL's prior experience and the results achieved by peer utilities. In doing this bottom-up approach, IPL relied primarily on the experience and expertise of its program managers. IPL then took into account the various factors identified in 199 IAC Chapter 35, including cost-

effectiveness and practical considerations such as availability of deployment infrastructure and market barriers and opportunities. (Tr. 292-293.)

a. Whether the Statewide Assessment is accurate and complete;

While it was identified specifically in the Joint Statement of Issues as a point for consideration, IPL believes that the Statewide Assessment is accurate and complete. As noted in Dr. Haeri's Rebuttal Testimony, the IOUs and the stakeholders in the collaborative process assisted in the definition of the Statewide Assessment's parameters. (Tr. 293.) The Statewide Assessment represented standard practice in assessment of potential consistent with the guidelines of the National Action Plan for Energy Efficiency (NAPEE). (2014-2018 EEP, Appendix H.) The NAPEE identifies four types of potential (technical,[6] economic,[7] market (sometimes referred to as "maximum achievable")[8] and program (sometimes referred to as "achievable")[9]), while acknowledging that many potential studies will often address achievable potential under either technical or market potential. The Statewide Assessment addressed "achievable

[6] "Technical potential" is defined by 199 IAC 35.2 as "the demand and energy savings which could occur if every existing piece of equipment or operating practice were changed to a technically feasible level of energy efficiency. In other words, it is a theoretical amount of energy efficiency that could be gained by disregarding constraints such as cost-effectiveness and the actual willingness of customers to adopt the efficiency measures.

[7] "Economic potential" is defined by 199 IAC 35.2 as "the energy and capacity savings that result in future years when measures are adopted or applied by customers at the time it is economical to do so. For purposes of this chapter, economic potential may be determined by comparing the utility's avoided cost savings to the incremental cost of the measure. In other words, it generally is the cost-effective amount of energy efficiency that could be derived from those measures identified by the Technical Potential. Economic potential is a subset of technical potential.

[8] "Market potential" is not defined by 199 IAC 35.2. However, generally it is the amount of energy use that energy efficiency could realistically be expected to displace assuming the most aggressive program scenario possible (e.g., 100 percent incremental incentive payments). Market potential is designed to take into consideration the removal of real-world barriers to customer adoption of measures, administrative and similar costs for delivering programs, and the ability to ramp up program activity over time. This is also sometimes referred to as "maximum achievable potential." Market potential is a subset of economic potential.

[9] "Program potential" is not defined by 199 IAC 35.2. However, it generally is the energy efficiency potential that is possible given specific program funding and design. In other words, program potential addressed "achievable" potential as opposed to "maximum achievable" potential. Program potential is a subset of market (or maximum achievable) potential.

potential" as part of the market potential study. (2014-2018 EEP, Appendix H, p. 24 of 76.) No party has demonstrated that this Statewide Assessment is deficient in any manner.

b. Whether IPL should recognize a higher level of potential.

i. If IPL recognized a higher level of potential, the impact this would have on its customers.

ii. If IPL recognized a higher level of potential, the impact this would have on its resource planning.

IPL has developed its 2014-2018 EEP, drawing upon the Statewide Assessment, that appropriately recognizes the energy efficiency potential within its service territory in the State of Iowa. While IPL has regularly met and exceeded its savings goals while spending at or below its budgets, these accomplishments are not cause to double both IPL's energy savings and impact targets. To do so would do nothing more than set unattainable goals at an expense exceeding the reasonable costs that IPL's customers should bear.

The Environmental Intervenors specifically contend that IPL has failed to develop a 2014-2018 EEP that would capture what it terms as the "maximum achievable market potential" (which they also equate to "maximum achievable potential"). (See, e.g., Tr. 666, 668, 673, 675, 676, 679, 680, 683, 684, 685, 686, 688, 689, 691, 692, 693, 694, 746, 750, 753, 754, 757, 761.) This term, however, appears nowhere in 199 IAC Chapter 35. The Environmental Intervenors appear to have given their own modified definition to the concept of "market potential." This phrase appears in the Statewide Assessment at Table 2.6 in Volume 1, Book 1 of IPL's Revised 2014-2018 EEP. The Environmental Intervenors then assume that the estimated potential under their scenario from the Statewide Assessment was "achievable." In doing so, the Environmental Intervenors have created a new standard for the development of an EEP

that has no basis in statute, administrative code, or Board precedent. Not only that, but the Environmental Intervenors have created a standard that could never be achieved under realistic circumstances.[10]

In advocating for their own definition of "maximum achievable market potential," the Environmental Intervenors have lost sight of the fact that market potential for the Statewide Assessment was specifically defined to encompass a particular scenario that was known to be hypothetical, and ultimately, unrealistic. Specifically, the Statewide Assessment's sponsors (the IOUs) and stakeholders (those who participated in either the Docket No. EEP-08-1 proceedings or the resulting collaborative efforts) requested three explicit assumptions for the determination of "market potential." These three assumptions were:

1) Payment of incentives equal to 100 percent of the measure's incremental cost;
2) Availability of financing to overcome first cost as a barrier to participation; and
3) The use of emerging technologies as additional qualifying measures.

(Tr. 293-294; 2014-2018 EEP, Appendices B and H.)

These criteria, however, could produce only hypothetical results for a point of reference and could never represent a truly "achievable" standard in Iowa. As noted by Dr. Haeri:

> These assumptions do not represent the current energy efficiency policy environment in Iowa because:
>
> 1. For the 2014-2018 EEP, IPL's incentives cover approximately 55 percent of incremental measure costs on average. Thus, IPL would have to nearly double the proposed incentive amounts to satisfy the

[10] Notably, the Environmental Intervenors have also failed to provide any programmatic changes to actually achieve their suggested savings goals and spending targets. (Tr. 795-796.) Nor have the Environmental Intervenors provided, as required by 199 IAC 35.6(3), "A statement of the proposed costs and benefits and benefit/cost test results as a result of any … alternative plan and the amount of difference from the utility's projected costs and benefits." (Tr. 771-772.)

first assumption underlying the definition of market potential. IPL believes that incentives at their current level largely mitigate the effects of first-cost as a barrier to consumers' willingness to participate in energy-efficiency program without exposing IPL's customers to excessive rate pressure.

2. There is also no financing mechanism currently in place in Iowa that satisfies the second assumption in the definition of market potential.
3. 199 IAC 35.8(1) provides that utilities shall consider commercially available energy efficiency measures in assessing potential energy and capacity savings, which implicitly excludes the application of emerging technologies in EEP development.

(Tr. 294.)

Essentially, the Environmental Intervenors wish to hold IPL to a standard that realistically cannot be met and is inconsistent with Iowa's energy policy. The Environmental Intervenors' witness, Mr. Geoffrey C. Crandall, acknowledged that IPL has historically performed well with regard to energy efficiency and was continuing to do so. (Tr. 795-796.) In order to continue delivering these programs, IPL asks that the Board trust the IPL's judgment as a successful energy efficiency partner with the State of Iowa.

i. If IPL recognized a higher level of potential, the impact this would have on its customers.

IPL's proposal, as expressed in its 2014-2018 EEP and Settlement, is the only alternative that provides the appropriate balance when considering both the total energy savings and spending targets, and the impacts on IPL's customers. As shown in Table 1.6 and Table 1.8 of Volume 1, Book 1 of the Revised 2014-2018 EEP, IPL's proposal produces a rate impact measure (RIM) test[11] result of 1.21 for electric and 0.46 for natural gas.

[11] Contrary to the assertions of the Environmental Intervenors, IPL did not use the RIM test to "constrain" its results. Rather, IPL developed its 2014-2018 EEP, and then applied the RIM test to ensure that the results of its proposal would not be harmful financially to its customers. (Tr. 302-303.) The

The Environmental Intervenors' proposal to double IPL's savings goals and budgets, however, will cause significantly inflated energy-efficiency costs for IPL's customers. The RIM test is specifically affected by three recommendations made by the Environmental Intervenors' witness, Mr. Crandall: 1) Mr. Crandall recommends that IPL pay 100 percent of incremental measure costs (Tr. 687, 693); 2) Mr. Crandall proposes that IPL increase its direct utility costs for specific activities (Tr. 688); and 3) Mr. Crandall fails to consider bill reductions (i.e., lost revenues) caused by his recommendations.

Properly calculating and taking into consideration these factors, the Environmental Intervenors' recommendations would increase IPL's incentive costs from $260 million to $711 million, while direct utility costs would increase from $62 million to $623 million and bill reductions would increase from $500 million to $1 billion. (Tr. 458.) According to Mr. Vognsen:

> The electric plan, if revised according to Mr. Crandall's proposal, will fail the RIM test by a considerable margin. Moreover, customer bills would increase significantly… Customer rates would increase under his proposal by almost $1 billion when compared to IPL's 2014-2018 EEP.

(Tr. 458-459.)

While IPL agrees that the development phase of an energy efficiency plan should not be constrained by consideration of rate impacts, a plan cannot be implemented without an examination of its effects on the utility's customers as a whole. The views expressed by the ICEE clearly indicate that the rate impact of any given EEP matters a great deal to the customers who ultimately shoulder the costs. IPL first developed its 2014-2018 EEP and then, based on applicable law and sensitivity to its customers,

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Environmental Intervenors did not apply any similar analysis to test the financial effects that its recommendations would have on IPL's customers.

calculated whether its proposed portfolio of energy efficiency programming passed the RIM test.[12] To implement the Environmental Intervenors' proposal, however, one would have to disregard the impacts to IPL's customers altogether in the quixotic hope of achieving an unachievable goal.

The science and art of developing an effective EEP depends on multiple perspectives, which is why 199 IAC 35.8(2)"a" requires:

> [f]or the plan as a whole and for each program, the utility shall provide:
> …
> (2) Societal, utility cost, ratepayer impact measure, and participant test benefit/cost ratios…

Finally, IPL notes that the increase that would be caused by the Environmental Intervenors' proposal is $1 billion above that contained in the notice IPL provided to its customers pursuant to 199 IAC 35.4(4). Because this increase is so far beyond the estimated bill impacts IPL provided in its notice of this proceeding pursuant to 199 IAC 25.4(4)"c," IPL questions whether the Environmental Intervenors' proposal could legally be implemented. At a minimum, the Environmental Intervenors' proposal would require re-notification to IPL's customers of this substantial increase costs that will be passed through the EECR. 199 IAC 35.4(4)"c."[13]

Further, given that certain of IPL's customers have intervened in this docket in no small part because of cost impact concerns, the rate impact effects of the Environmental Intervenors' proposal cannot be ignored.

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[12] IPL is required to provide RIM test results, as well as societal, utility cost and participant test benefit/cost ratios to the Board with its EEPs pursuant to 199 IAC 35.8(2)"a."

[13] IPL acknowledges that the cost estimate contained in a proposed EEP will rarely match the ultimate rate impact of a final EEP. The matter of a few million dollars in a $399 million budget, though, is far different from a $1 billion increase to a $399 million budget. Because this increase is so far beyond the notice actually provided to its customers, IPL's customers should be allowed to properly respond before any such significant increase be adopted.

ii. If IPL recognized a higher level of potential, the impact this would have on its resource planning.

Any recognition of realistically achievable energy efficiency potential will have no impact on IPL's resource planning. IPL's load forecasts used in its resource planning already takes into consideration the impact of the savings achieved by IPL's energy efficiency programs. (2014-2018 EEP, Appendix C, p. 34 of 53.) If the Environmental Intervenors have had any issues with the load forecasts used in IPL's resource planning methodology, they have had other venues by which to pursue them.[14]

4. Whether IPL's proposed annual savings targets are appropriate.

Issue No. 4 has been resolved between IPL and the OCA through the negotiation and settlement of the terms set forth below. The Environmental Intervenors object to this settled term, and IPL has addressed the Environmental Intervenors' objections above in conjunction with the discussion of achievable potential, Issue No. 3. The ICEE and Deere have not taken a position on this settled term.

5. Whether IPL's proposed energy efficiency programs and budgets are appropriate to achieve those energy savings, and whether supplemental performance-based criteria are appropriate to help maximize achievement of cost-effective energy efficiency opportunities are needed.

Issue No. 5 has been resolved between IPL and the OCA. As a resolution of this issue with OCA, IPL agrees that it will strive to find cost-effective, customer-centered,

[14] IPL continues to object to any attempts by the Environmental Intervenors to use this proceeding to launch an ancillary attack on IPL's proposed Marshalltown Generating Station. (Tr. 343, 344, 348, 517, 518.) IPL will not belabor those arguments here, but does retain its right to object to any portion of the Environmental Intervenors' brief that may inappropriately address this issue. IPL notes, however, without waiving any right to object, that various errors in Mr. Crandall's arguments prohibit his analysis from bearing any weight, even if the resource planning issue were fully addressed. (Tr. 459-462.)

performance-based incentives to vendors/contractors that motivate customer engagement, energy efficiency market development, and market transformation. IPL will report on these efforts as part of its Fall Operations Report, another concession reached in Settlement (see specifically Appendix 3 to the Settlement).

The Environmental Intervenors object to this settled term. However, with the exception of the general arguments regarding IPL's energy savings and spend targets, the Environmental Intervenors have provided no real criticism of IPL's performance.

The ICEE and Deere have not taken a position on this settled term.

6. Whether IPL's proposed energy efficiency programs demonstrate a sufficient level of consistent and sustained coordination, such that there is integrated and systematic and cost-effective implementation of energy efficiency measures within and across program sectors.

Issue No. 6 has been resolved between IPL and the OCA. IPL has incorporated provisions for third-party subcontracting within its Request for Proposal (RFP) process. Additionally, IPL will work with Green Iowa Americorps (GIAC), in the communities in which GIAC operates, to develop a supplemental weatherization program for customers on Community Action Program (CAP) agency waiting lists in those communities. Please see Issue Nos. 9 and 11 for more information regarding these concessions. It is further envisioned that Hometown Rewards may also serve as an avenue for engaging third-parties and local energy efficiency resources.

The Environmental Intervenors object to this settled term. Again, however, with the exception of the general arguments regarding IPL's energy savings and spend targets, the Environmental Intervenors have provided no real criticism of IPL's performance or its proposed resolution with the OCA.

The ICEE and Deere have not taken a position on this settled term.

WED was not a signatory to the Settlement, but did appear to specifically object to this Settlement term. WED's objection was based, however, on program implementation details that, because it has not utilized this structure in the past, IPL simply does not have available at this time. (Tr. 266.) IPL is unable to make any commitments to WED at this time, since it has yet to even begin substantive negotiations with a primary vendor.

7. Whether IPL has proposed an appropriate plan and budget for the evaluation, measurement and verification of its EEP.

Issue No. 7 has been resolved between IPL, the OCA and the Environmental Intervenors. These Parties agree that Appendix 1, which is attached to the Settlement, entitled "Evaluation, Measurement and Verification Framework,"(EM&V Framework) is an appropriate resolution of the issues raised by the parties. Quality assurance and quality control for IPL's programs will be addressed in the EM&V Framework. As this is implemented, IPL will monitor whether budget adjustment is needed in order to fully implement the plan components.

The ICEE and Deere have not taken a position on this settled term.

8. Whether technical assistance standards are adequate and effective to achieve high levels of "conversion," or practice implementation, and to adequately attribute practice implementation and savings back to technical assistance provided versus stand-alone prescriptive or custom rebate.

Issue No. 8 has been resolved between IPL and the OCA through the negotiation and settlement of the terms set forth in the Settlement. The Environmental Intervenors, ICEE and Deere have not taken a position on this settled term.

WED appeared to dispute IPL's conversion rates and proffered that a local entity could do more to spur customers from the assessment to actual implementation. (Tr. 409.) In his Surrebuttal Testimony, Mr. Johnson contended that current assessments "are a program driven product – the technical provider is incentivized to get in, produce a report, and move on." (Tr. 393.) Mr. Johnson, however, misunderstands how IPL's assessment process works. As described by IPL witness Bonnie F. Donnolly:

> [T]he assessor goes, in [*sic*] talks with the customer about their usage, learns a little bit about their home, walks through and identifies key areas of recommendations for energy efficiency improvements, does a direct install and then presents the customer with a report and recommendations. We actually give them the next steps for them to take. (Tr. 255-256.)
>
> Along with that we also give them tools, like our energy efficiency dealer network information, how to take the next step; and the assessors then educate the customer, they're one on one, sometimes right at the kitchen table, but the homeowners is there during the assessment…. (Tr. 256.)
>
> The report does give recommendations with how to take the next step on thos recommendations with the educational materials, and then the information is shared with the homeowner during the actual assessment. (Tr. 257.)

As further described by Ms. Donnolly, IPL intends to expand on these actions with its 2014-2018 EEP by implementing additional tracking mechanisms to increase its conversion rate:

> We are just launching our new tracking system. It's called Tool for Reporting Energy Efficiency Services, TREES is the acronym for it….
>
> But that information once it is completely up and running will allow us to track such depth and breadth of our assessments.
>
> And in our new proposed energy efficiency plan we have even offered an extra incentive to those who do multiple projects within the home energy assessment program. So that if there are three recommendations and they recommend – they implemented two out of the three, the majority of them, there's an extra incentive to encourage that whole-home retrofit idea through a comprehensive energy assessment. (Tr. 252-253.)

Mr. Johnson's concerns, therefore, are demonstrably unfounded.

9. Whether technical assistance (energy auditing, assessments, planning, follow-through) to all customer classes ought to be open to additional qualified energy professionals not currently participating in IPL's EEP.

Issue No. 9 has been resolved between IPL and the OCA. IPL has incorporated provisions for third-party subcontracting within its Request for Proposal (RFP) process. IPL and the OCA concur that the RFP, entitled "Interstate Power & Light Company Request for Proposals for Energy Assessment Delivery: Residential and Small Business in Iowa and Minnesota" and contained in Appendix 2 to the Settlement, alleviates the concerns expressed in testimony regarding these programs. During contract negotiations with the successful bidder, IPL will reserve the right to allow third-party qualified subcontracting and will retain the right to require the vendor to support third-party subcontracting as defined and directed by IPL. IPL will retain oversight, management and direct access to the third-party contractor.

The Environmental Intervenors, the ICEE and Deere have not taken a position on this settled term.

WED was not a signatory to the Settlement, but did appear to specifically object to this Settlement term. As with Issue No. 7 above, WED's objection was based,

however, on program implementation details regarding a process that IPL simply does not have available at this time. (Tr. 266.)

10. Whether a more formal collaboration and/or enhanced reporting process for energy efficiency plan performance is warranted.

Issue No. 10 has been resolved between IPL, the OCA and the Environmental Intervenors. IPL, the OCA and the Environmental Intervenors agree that Collaborative Meetings shall continue throughout the period of the 2014-2018 EEP. IPL, the OCA and the Environmental Intervenors agree to a format commemorated in Appendix 3 to the Settlement, entitled "Collaboration Plan for IPL and 2014-2018 Energy Efficiency Plan (EEP) Stakeholders.". Included in Appendix 3 to the Settlement are the specific actions IPL agrees that it shall undertake.

The ICEE and Deere have not taken a position on this settled term. At hearing, WED's representative Mr. Johnson did not make it apparent that WED had any objection to this settled term.

11. Whether IPL has proposed appropriate Residential Portfolio Programs, including the potential for stand-alone direct install programming open for implementation by qualified community-level organizations including, but not limited to, Green Iowa Americorps teams and hosts.

Issue No. 11 has been settled between IPL and the OCA. As commemorated in the Settlement, IPL agrees it shall undertake the following actions in addition to, or in place of, as appropriate, those it has submitted in its 2014-2018 EEP:

A. As discussed in regard to Issue No. 9 above, the contracts resulting from the RFP for residential and small business energy assessments contained in Appendix 2 to the Settlement will encourage IPL's primary vendor to subcontract with local experts

and incorporate performance based criteria as discussed in Issue No. 5.

B. IPL will strive to coordinate and leverage community resources as appropriate and will strive to recruit Hometown Rewards participants in mixed utility communities.

C. IPL will prioritize behavioral programming in the Research, Development and Demonstration (RD&D) portion of its Outreach, Education and Training Portfolio. IPL intends to implement a residential behavior pilot in May 2014 that will include at least 40,000 combination natural gas and electric residential customers, contingent upon the recommendation of the selected contractor and consultation with interested stakeholders. If the pilot is cost-effective, IPL will offer a behavioral program. Both of these implementation plans are contingent upon two factors: 1) whether a behavioral program vendor will be able to also provide the information technology (IT) work for program implementation; and/or 2) whether IPL's internal IT resources are available for delegation to the program development. If the latter cannot be resolved, IPL will implement after its new customer information system is operational, currently estimated for completion in 2017.

D. IPL will work with GIAC, in the communities in which GIAC operates or expands its operations to develop a supplemental

weatherization program for customers on CAP agency waiting lists in those communities.

E. EnergyWise - IPL shall address recommendations, as appropriate, resulting from its 2009-13 EM&V in discussions with its vendor for its 2014-2018 implementation.

F. Home Energy Savers – IPL has hired a vendor to conduct follow-up with customers to bolster the program's results. IPL will revisit this program after it has an opportunity to view the results of the enhanced efforts.

G. Multifamily – IPL agrees to participate in joint utility promotion targeted at tenants to increase demand for efficient dwellings. OCA and IPL will continue to monitor this program for rating options and efficiency designations.

H. New Home Construction – IPL has addressed quality assurance and quality control for this program in its EM&V Framework, contained in Appendix 1 to the Settlement. IPL will continue to monitor this program and consider market research to guide possible incentives for even more efficient home designations. IPL will review baseline assumption (2012 International Energy Conservation Code) to determine savings that should be attributed to this program.

I. Change-a-Light (CAL) – IPL agrees to add bulb type detail to its Annual Report. IPL agrees to give greater emphasis to LEDs

through increased education and marketing efforts. IPL will continue to monitor this program and consider market research as per incentive levels, life spans and baseline calculations. Specifically, IPL will:

- increase the total number of bulbs in the program;
- re-allocate the 2014 bulb allocation to 10% LED and 90% CFL and re-evaluate, utilizing an analysis considering the data from the first three quarters of the year as well as a trailing 12-month time period and market projections for the subsequent 12-month time period, the potential for increasing the LED percentage annually at the October/November stakeholder meeting described with regard to Issue No. 10 (specifically contained in Appendix 3 to the Settlement) above;
- have the CAL program, from 2014 forward, subjected to an annual process evaluation;
- decrease CFL Incentives from the current level of $2.67 to $1 per bulb over the course of the 2014-2018 EEP;
- LED Incentives shall begin at $10 per bulb and shall adjusted over the course of the 2014-2018 EEP to keep the incentive between 50 to 100% of the incremental measure costs of the LED lamps and fixtures; and
- remain flexible to reviewing the CAL program, including bulb incentives and incentive allocations, throughout the 2014-2018 EEP based on market changes.

These figures take into consideration the Energy Independence and Security Act (EISA) standards.

J. Appliance Recycling – IPL will include a breakdown of individual measures (i.e., appliance type) and their calculations in its Annual Report.

K. Direct Load Control (DLC) – IPL has been, and will continue to, cross-market other programs through outreach with its DLC customers.

L. Prescriptive Rebates – IPL will review MidAmerican Energy Company's (MEC) ground source heat pump (GSHP) and furnace offerings to determine whether these options are viable and cost effective for the IPL service territory. These findings will be reported to the OCA and EEP parties on or before October 31, 2013. IPL will continue to monitor Home Energy Management Systems and other cost effective measures for possible inclusion in its EEP, and will provide specific reasons for not including cost effective measures. IPL will also review measures not included in the 2014-2018 EEP for cost effectiveness reasons.

M. HVAC SAVE – IPL will address quality assurance, quality control, and EM&V for this program through its EM&V Framework, contained in Appendix 1 to the Settlement.

IPL contends that these Settlement points, which either augment or supplant the programmatic details contained in IPL's 2014-2018 EEP, present a fair compromise of the previously contested issues, as well as sufficiently address issues raised by the non-signatories to the Settlement and, to an extent, issues raised by signatories who have not expressed explicit support for the above provisions.

The Environmental Intervenors specifically support the settlement items delineated in 11.C. and 11.I, and have not taken a position on the remainder of this settled term. The ICEE and Deere have not taken a position on this settled term.

12. Whether IPL has proposed appropriate Nonresidential Portfolio Programs.

Issue No. 12 has been resolved between IPL and the OCA. Pursuant to the Settlement, IPL agrees that it shall undertake the following actions in addition to or in place of the programmatic actions already included in its 2014-2018 EEP:

A. Agricultural programs – IPL will continue to push the market toward more efficient lighting options, particularly LED. IPL will identify propane efficiencies, when applicable, as part of the agricultural audits.

B. Business Assessments – IPL now has a system that will allow for tracking of assessment recommendations and matching these recommendations to its program offerings. IPL will issue an RFP in alignment with the OCA's recommendations for third-party inclusion, as described with regard to Issue Nos. 9 and 11 above, and performance-based criteria as described in Issue No. 5 above. The Small Business Direct Install Lighting Program will include comprehensive lighting design and redesign as part of the program assessments and incentives and IPL's operating plan, vendor selection, marketing, and promotion will reflect this. IPL will evaluate the outcomes through its EM&V Framework, contained in Appendix 1 to the Settlement.

C. Commercial New Construction – IPL will update its baseline as applicable codes and standards are revised. IPL will make verified

savings reports at the measure level available for the EM&V process.

D. Custom Rebates – The OCA agrees that IPL has undertaken sufficient actions to address this issue. These actions include: 1) a bundling strategy to encourage comprehensive projects; 2) maintaining appropriate staffing levels to address customers' needs; and 3) maintain appropriate market segmentation and outreach. IPL will continue industry-specific outreach to sectors identified in its 2010 Industrial Assessment and consider additional segmentation recommendations, including municipalities, schools, prisons, retirement homes, hospitals, waste/wastewater plants.

E. Prescriptive Rebates – IPL will review the possibility for an upstream HVAC program and its research findings will be reported to the OCA and EEP parties on or before October 31, 2013. IPL will continue to review product qualifications in an annual program review. While it feels test in/test out blower door tests for infiltration measures may not be cost effective, it will monitor the response to such tests for the residential program and will determine whether it would be appropriate to include the same for the non-residential program during the course of the 2014-2018 EEP. IPL will evaluate all lighting incentives to account for current codes and standards at regular intervals throughout the 2014-2018 EEP. In 2014, IPL is

using regular T8's as its baseline and incentives will only be offered for measures above that baseline.

F. Behavioral – IPL will offer a sustainability pilot that utilizes behavioral approaches (peer groups in similar geographic locations) to motivate energy efficient decisions.

G. Benchmarking – IPL offers benchmarking options to each Commercial & Industrial audit participant.

IPL contends that these Settlement points, which either augment or supplant the programmatic details contained in IPL's 2014-2018 EEP, present a fair compromise of the previously contested issues, as well as sufficiently address issues raised by the non-signatories to the Settlement and, to an extent, issues raised by signatories who have not expressed explicit support for the above provisions.

The Environmental Intervenors specifically support Business Assessments settlement delineated in 12.B, and have not taken a position on the remainder of this settled term.

The ICEE and Deere have not taken a position on this settled term.

13. Whether IPL has proposed appropriate Outreach, Education and Training Portfolio Programs, including the potential local or community programs including, but not limited to, Green Iowa Americorps teams and hosts for local activities.

Issue No. 13 has been resolved between IPL and the OCA. Pursuant to the Settlement, IPL agrees that it shall undertake the following actions in addition to or in place of the programmatic actions already included in its 2014-2018 EEP:

A. IPL has agreed to utilize GIAC not only as part of Issue No. 11D above, but also as a resource to serve the manufactured housing market in the communities in which GIAC is located.

B. Education – IPL will consider behavioral change/energy challenge for school based programs. IPL will evaluate LivingWise through its EM&V Framework, contained in Appendix 1 to the Settlement.

C. Marketing Plan – IPL will share comprehensive marketing plan at the October/November stakeholder meeting described with regard to Issue No. 10 (specifically contained in Appendix 3 to the Settlement) above. IPL will monitor whether budget adjustments are necessary to support initiatives designed to motivate customer engagement, energy efficiency market development and market transformation as described in Issue No. 5.

D. The Parties acknowledge that program/measure specific advertising shall be retained in the program budget and shall not be moved to the Outreach, Education and Training Portfolio budget.

E. Builder Training – The Parties acknowledge that, although the budget for this program was reduced, the program itself shall continue to operate in the 2014-2018 EEP consistent with how it operated in the 2009-2013 EEP. The Parties acknowledge that IPL simply modified the budget to better reflect budget experiences garnered from the first five years of the program.

F. IPL will consider a cap of 50 percent funding from energy efficiency funds for the Storm Fund tree program on a case-by-case basis and will provide advance notice of such decisions to the Board and OCA. All other trees programs administered by IPL will maintain a clear energy efficiency nexus and be accompanied by appropriate energy efficiency educational materials.

IPL contends that these Settlement points, which either augment or supplant the programmatic details contained in IPL's 2014-2018 EEP, present a fair compromise of the previously contested issues, as well as sufficiently address issues raised by the non-signatories to the Settlement and, to an extent, issues raised by signatories who have not expressed explicit support for the above provisions.

The Environmental Intervenors, the ICEE and Deere have not taken a position on this settled term.

14. Whether IPL has proposed appropriate Demand Response Portfolio programs.

Issue No. 14 has been partially resolved between IPL and the OCA. Regarding cross-promotion of other programs through the DLC program, IPL shall share its comprehensive marketing plan with interested parties at the October/November stakeholder meeting discussed with regard to Issue No. 10 (specifically contained in Appendix 3) above. The Environmental Intervenors, the ICEE and Deere have not taken a position on this settled term.

However, the issue regarding interruptible credit levels remains in contention. Specifically, the OCA recommends IPL re-initiate a joint OCA/customer settlement

process to establish new tariff Rider INTSERV (IPL's nonresidential interruptible credit program) credits, utilizing "regional electricity market" data "if at all possible." (Tr. 959.)

IPL resists, however, basing the calculation of an interruptible credit on short-term capacity auctions administered by the Midcontinent Independent System Operator, Inc. (MISO). IPL's interruptible credit program is intended to focus on long-term resource reliability and load relief. As explained by Mr. Vognsen, who has been involved in IPL's nonresidential interruptible program for over 25 years:

> The customers that participate in this program make long-term investments in standby generation and process changes that enable them to participate in the program. From a resource planning perspective, IPL's future generation needs are based upon the load relief provided by these customers under the current program structure. The valuation of this program should use the same long-term criteria as other energy efficiency programs.

(Tr. 467.)

As further noted by Mr. Vognsen, shifting to a credit based on short-term capacity auctions could cause large customers to re-think the value of participation in this program. (Tr. 468.) It may also have a negative impact on IPL customers who have made investments based upon the expectation of the credits at their current levels, and which may become un-economic if the credits were lowered. (Tr. 489, 563-564.)

Such customer uncertainty has the potential to make capacity planning more difficult. If prices change drastically, or frequently, it is certainly possible that participation in the program could change drastically or frequently. Under such conditions, IPL and its customers may be subject to cost swings that are less evident today under IPL's consistent pricing model.

The OCA also suggested at hearing that IPL could bring its nonresidential interruptible credits closer in line with those of MEC. There are a number of problems

with this suggestion. First, as outlined by Mr. Vognsen, IPL has based its current interruptible credit levels on its approved avoided generation, transmission and distribution costs. (Tr. 467.) Second, IPL and MEC have different valuations for avoided costs. (Tr. 484, 1011.) Finally, the parties have agreed that the matter of the correct valuation of avoided costs is a topic that is suited to an investigative (INU) proceeding. (See the discussion in this brief regarding Issue No. 22.)

It should also be noted that the nonresidential interruptible program is more than an energy efficiency program. The nonresidential interruptible program also "supports the reliability of the distribution and transmission systems…" (Tr. 469.) Given the value it provides, the investment required of the participating customers and the dubious merits for credit recalculation, IPL cautions against instituting any substantial changes to the nonresidential interruptible credit program.

15. Whether opt-out provisions that would allow customers meeting certain criteria to not participate in or fund utility-sponsored energy efficiency programs should be made available and whether the Board should institute a rulemaking proceeding to develop the parameters.

Issue No. 15 remains in contention and has been presented to the Board for resolution. IPL notes that this issue has previously come before the Board and has been denied based on public policy. However, IPL believes that the decision to allow for an opt-out provision, and the means by which such a provision would be developed, is solely within the discretion of the Board.

IPL notes, however, that it has based its 2014-2018 EEP (including its acquiescence to the Settlement terms) upon the participation of, and benefits to, the entirety of its customer base. Thus, if the Board chooses to make substantial changes

to Iowa's opt-out policy, sufficient to allow large customers to opt out of IPL's 2014-2018 EEP before the plan's conclusion, IPL would need to re-evaluate and reconfigure its the 2014-2018 EEP. IPL further believes that there are a variety of considerations regarding opt-out that the Board should examine more fully in a different type of proceeding, such as a rulemaking. (Tr. 473.) Such a change in Iowa's energy efficiency policy would require broader stakeholder input above and beyond what was represented in this proceeding.

16. Whether the energy efficiency cost recovery factors should be explicitly identified on customers' bills.

Issue No. 16 has been resolved between IPL and the ICEE. No sooner than the implementation of a new Modern Customer Information System (MCIS) for its Iowa customers, and with the Board's approval, IPL agrees to display the energy efficiency cost recovery (EECR) factors, specifically the monthly energy efficiency charge and corresponding factor, on customers' bills. IPL notes that it has had incidents where customers have not been able to appropriately tie the rates they see in IPL's tariffs to the amounts paid on their bills; this disconnect has often been attributable to the EECR. (Tr. 549.) IPL believes this is a fair resolution of this issue as it will increase transparency for customers regarding their bills and the amount they pay for energy efficiency.

The OCA and Deere have not taken a position on this settled term. The Environmental Intervenors object to this settled term.

17. Whether IPL should be ordered to track non-residential energy efficiency expenditures by rate class as well as by program.

Issue No. 17 has been resolved between IPL and the ICEE. IPL agrees to track within its systems non-residential energy efficiency expenditures by rate class as well as by program and will consider that information in developing future EECR factors. IPL believes this is a fair resolution of this issue as it will allow for increased accuracy regarding the future allocation of costs across non-residential rate classes.

As noted by Mr. Vognsen:

> Right now for calculation of the annual EECR cost recovery factor, we do an allocation for the nonresidential customers that's based off their [nonEECR] revenue, and we allocate the incentive based off that allocation, and what we've agreed to is to actually track that by rate code so that we can directly assign those incentive costs to those customer rate classes or rate schedules.

(Tr. 550.)

The OCA objects to this settled term. The Environmental Intervenors and Deere have not taken a position on this settled term.

18. Whether IPL should revise its Large General Service EECR factors to a two-part EECR factor with a separate demand factor for recovery of costs associated with direct load control and interruptible program costs and an energy-based factor for all other eligible energy efficiency costs.

Issue No. 18 has been resolved by IPL, the OCA and the ICEE. IPL will examine any appropriate revision of its Large General Service rate design in the context of its next rate case. IPL believes this is the most appropriate venue to address the value of implementing a two-part EECR factor.

The Environmental Intervenors and Deere have not taken a position on this settled term.

19. Whether IPL is appropriately integrating a market transformation approach in its program and, if so, what are the implications of market transformation (e.g., when the market has been transformed via codes and standards or other intervention strategies).

Issue No. 19 has been resolved between IPL and the OCA. Specifically, the procedures included in Issue No. 7 (EM&V), Issue No. 5 (performance-based incentives), Issue No. 10 (Collaborative Meetings) and Issue No. 20 (Technical Reference Manual, or TRM) sufficiently address the concerns regarding market transformation.

The Environmental Intervenors, the ICEE and Deere have not taken a position on this settled term.

20. What considerations there should be regarding a technical reference manual, including formulation, consistency among utilities, timing of implementation, and independent oversight process and administration.

Issue No. 20 has been resolved between IPL, the OCA and the Environmental Intervenors. IPL agrees to work with MEC, Black Hills Energy, and interested parties in the development of a TRM. The development strategy for the TRM is addressed in more detail in Section 4 of Appendix 1 to the Settlement.

The ICEE and Deere have not taken a position on this settled term.

21. What the implications are of, and what consideration should be given to, implementing net-to-gross (NTG) ratios other than 1.0 for specific programs.

Issue No. 21 has been partially resolved between IPL, the OCA and the Environmental Intervenors. NTG shall be addressed in the context of the EM&V Framework as described in Issue No. 7 and the TRM described in Issue No. 20. The Environmental Intervenors have reserved the right to contest the implications of net-to-gross on the savings targets and budgets in the 2014-2018 EEP, but did not appear to active oppose this settled term at hearing.

The ICEE and Deere have not taken a position on this settled term.

22. Whether avoided cost timing and/or methodologies should be revised or addressed in this proceeding:

- **a. Whether IPL's current avoided cost methodologies are compliant with 199 IAC 35.9(7), 199 IAC 35.10(2) and 199 IAC 35.10(4) and whether changes in methodology are warranted;**
- **b. whether the identified avoided costs accurately reflect the costs that IPL avoids by implementing energy efficiency and/or customer-sited renewable energy;**
- **c. Whether avoided cost determinations should be computed using the same methodology for both EEP development (199 IAC 35.9(7)) and Public Utilities Regulatory Policies Act (PURPA) qualifying facilities pricing (199 IAC 15.5);**
- **d. Whether a change in avoided costs of more than 10-20% during plan implementation should result in an updated screening of energy efficiency programs to consider whether program changes or plan modification are warranted.**

Issue No. 22 has been resolved between IPL, the OCA and the Environmental Intervenors. These three parties agree to request an investigative proceeding (INU) to address the issue of avoided costs in more detail. The three parties shall submit a request, singularly or jointly, for an INU proceeding by January 15, 2014.

The ICEE and Deere have not taken a position on this settled term.

IPL supports this resolution because it provides all interested parties, including the other Iowa IOUs, an opportunity to address the issue in one proceeding rather than as one piece of a much larger proceeding for only one utility, such as an EEP proceeding. By allowing an opportunity for all interested parties, not just the parties to this EEP proceeding, to give the issue the attention it deserves, the final resolution of this issue can be fully resolved with no outstanding due process concerns. Accordingly, the parties agreed to request that the Board open an INU proceeding by January 15, 2014, a point in time presumably after the conclusion of all three IOUs' EEP proceedings.

23. Whether IPL's combined heat and power program should: 1) be better defined in IPL's plan to include more specific program information, guidelines, savings targets and incentives; and 2) be expanded.

Issue No. 23 remained in contention and has been presented to the Board for resolution.

IPL currently supports combined heat and power (CHP) through its existing tariffs and its Custom Rebate program.[15] IPL's existing cost-based tariffs have been fully vetted through the regulatory process and are currently in use by customers with over 350 MW of distributed generation in aggregate. (See, e.g., Docket Nos. RPU-2009-0002, RPU-2010-0001 and FCU-2010-0014, which all addressed IPL's Standby and Supplemental Service tariff.) IPL's Custom Rebate program provides qualifying customers[16] an incentive of 150 percent of the first-year energy dollar savings of the

[15] On August 20, 2013, the Iowa Economic Development Authority submitted a letter in this docket in support of IPL's inclusion of CHP in its 2014-2018 EEP.
[16] Qualifying customers are those customers who:

primary fuel serving the thermal load.[17] (Revised 2014-2018 EEP, Volume 1, Book 2, Section 13.) IPL puts neither a floor nor a ceiling on the CHP incentive level through the Custom Rebate program. IPL has found great success with its current CHP incentives. Specifically, of all CHP installations in the state of Iowa, 70 percent are located within IPL's service territory. (Tr. 470.)

The Environmental Intervenors contend that IPL should consider four different policy considerations which could further enhance IPL's CHP participation. However, these four considerations are not appropriate for the scope within which IPL operates. As described by Mr. Vognsen:

> The first consideration pertains to meeting a portfolio standard, but is not applicable in Iowa because there is no mandated energy efficiency portfolio standard. The second consideration pertains to performance metrics of a system, and is redundant of what is already required for a customer to attain Qualified Facility status under PURPA. The third consideration pertains to the energy savings calculation formula. Such a formula calculation is not "one size fits all" as the Environmental Intervenors' testimony seems to suggest. It is for this reason that CHP is part of IPL's Custom Rebate program – each situation is unique. The final consideration is system eligibility and incentive level caps. That, too, is addressed through the Custom Rebate program.

(Tr. 470-471)

During the hearing, the Board took administrative notice of "The Iowa NGA[18] Policy Academy (Iowa CHP Team) Action Plan on Enhancing Industry through Combined Heat and Power in Iowa," dated June 25, 2013 (NGA Report). That report

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- Participate in IPL's EEP associated with the primary fuel source related to the thermal load;
- Install the customer-owned CHP project on the customer's site, and size the project so that it meets the customer's thermal load characteristics with electricity, no more than the customer can use on site, being an ancillary benefit; and
- Complete a pre-approved feasibility study or site assessment.

[17] IPL will reimburse 50% of the required study cost up to $7,500, and will reimburse an additional 50% of the study cost up to $7,500 if the customer implements the project and the project is found to be cost-effective in the study. If the project is not cost-effective, the customer will not be eligible for a custom rebate, but may still be eligible for incentives available through IPL's other EEP programs.

[18] National Governors Association.

ultimately produced two suggested strategies: 1) continue current work by the Iowa Economic Development Authority (IEDA); and 2) encourage continued examination of utility-related aspects of CHP through the normal procedures of the Board. That report went on to note that, a "key factor[]" in a business's decision to incorporate CHP is economic feasibility. As the report states, "In Iowa, the price of electricity and natural gas are relatively low making the economics of CHP more difficult."

With that, IPL proposes to continue its current CHP Custom Rebate incentives. As demonstrated by the Environmental Intervenors' Exhibit 209, the current incentives are appropriately significant. The examples included in that exhibit estimated incentive level for two hypothetical CHP systems. For Example A, with the following assumptions, the incentive under the Customer Rebate program would be $82,500:

> Customer has need for high pressure steam, which is currently exhausted at 100 psig. The steam flow is 1000 lb/hr. Heat is rejected and the condensate is returned to the boiler for repeating the manufacturing cycle. A CHP bottoming cycle is installed. The CHP plant produces 70 kW of power and steam is discharged from the bottoming cycle turbine at 10 psig. Heat recovered from the 1000 lb/hr, 10 psig steam is used for preheating makeup water and combustion air for the boiler, and for processes. This heat recovery displaces 110,000 therms per year. At a blended cost of 50 cents per therm, the incentive would be $82,500.
>
> Assumptions/notes: Used 10 psi slightly superheated steam with an entropy of 1.82 as the turbine exhaust (enthalpy = 1165). Assumed isentropic expansion to move up to 100 psi steam with an enthalpy of 1404. Enthalpy of saturated condensate at 10 psi is 161. Result is 1 million Btu/hr captured.

For Example B, the incentive under the Custom Rebate program would be $750,000:

> Customer has 50,000 cfm waste stream of 900F exhaust from a manufacturing process. A waste heat power generation system is installed to convert this waste heat to electricity with a cycle efficiency of 20%, generating 700 kW of power continuously. Waste heat from the

> power generation cycle is used to generate steam for the facility. The waste heat displaces approximately one million therms annually. At an average/blended fuel cost of 50 cents per therm, the incentive for this project would be $750,000.
>
> Assumptions/notes: Density of 900 air is 0.027 lbm/cf rather than rule of thumb 0.07 (calculated with ideal gas law). Captured heat results in reducing exhaust temperature from 900 to 300F. Twenty percent of this is used to generate power and the remaining 80% generates steam. Assumed the steam would otherwise be generated with an 80% efficient boiler.

These are significant incentives. With this incentive structure, IPL has successfully managed its CHP program. IPL will naturally continue to evaluate its existing programs, including its CHP incentives. IPL does not suggest, however, instituting any changes unless and until those changes are demonstrably viable in the state of Iowa.

24. Whether IPL should be allowed to discontinue its Renewable Energy Portfolio (REP):

a. Whether specific measures in the REP, including solar photovoltaic installations, are cost effective;

b. Whether participation trends in the REP indicate increasing participation;

c. Whether IPL has options besides discontinuing the program including modifying the program based on past experience and changing markets or continuing the pilot for additional time.

d. Whether IPL has options besides discontinuing the program including modifying the program based on past experience and changing markets or continuing the pilot for additional time or funding certain renewables installations (i.e., solar photovoltaic) in whole or in part as a demand reduction/peak load management program.

Issue No. 24 remained in contention between the parties and was presented to the Board at hearing for resolution. IPL has determined that, for multiple reasons, it is not prudent to continue its Renewable Energy Pilot (REP) in its 2014-1028 EEP. The primary reason, however, is that the REP simply does not meet the Board's established

criteria because it does not sufficiently promote additional energy efficiency. Below, IPL will specifically address the following arguments supporting its decision to discontinue the REP:

a. **Energy Efficiency First** - Most notably, the REP does not meet the Board's directive that it should promote additional energy efficiency;
b. **Market Transformation** – The market is transforming with or without IPL's REP.
c. **Cost-Effectiveness** - While cost-effectiveness was not the tipping factor in IPL's decision to discontinue the REP, no analysis presented sufficiently supports the idea that the REP is cost effective; and
d. **Pilot Program** - Pilot programs are, by their very nature, test runs; when a program fails the test, it is antithetical to force it to continue.

a. Energy Efficiency First

In its 2009-2013 EEP, IPL proposed to include a renewables option with its energy efficiency portfolio for the following stated reasons:

> (1) IPL is always seeking to add cost effective measures or delivery mechanisms that encourage customers to reduce their peak demands – which delay the need to add production and delivery capacity to the IPL system – and to promote energy efficiency usage – which avoids the combustion of non-renewable resources.
>
> (2) Over time, renewable technologies have become more cost-effective which stimulates customer interest in, and adoption of these technologies.
>
> (3) Increased interest in climate change has led to an increased interest in renewable energy as an important component of the supply portfolio, not only as the energy source in a centralized power station such as a windfarm but also as a resource behind the customer meter.

(Environmental Intervenors Exhibit 104, pp. 4-5.)

In allowing IPL to implement the REP, the Board conditioned REP development specifically to encourage additional energy efficiency savings:

> However, the fact that renewable energy programs are not per se excluded from energy efficiency does not mean that there are no limits on

> the programs. Incentives for such programs must be designed to avoid transforming a renewable energy program operated under the umbrella of energy efficiency into a program that primarily promotes customer on-site generation. One of the ways to make sure the focus remains on energy efficiency is to link the incentives for renewables to customers' efforts to reduce energy use through energy efficiency. Customers can, of course, use their own funds to construct any type of generation for their own purposes (assuming all necessary permits are obtained), but utility funding pursuant to energy efficiency plans should be limited to support for renewable technology to support customers' efficient, on-site energy needs.

(Docket No. EEP-08-1, Final Order, p. 12, issued June 24, 2009.)

The Board reiterated this stance a year later:

> The Board's goal in establishing [certain] criteria was to put the renewable programs on an economically justifiable footing, with the emphasis first on energy efficiency and then on customer-side renewable energy systems.

(Docket No. EEP-08-1, Order Approving, in Part and with Conditions, Renewable Energy Program, p. 10, issued April 29, 2010.) The REP, however, has not met these criteria; ultimately, the program has become one that promotes on-site generation rather than energy efficiency. (Tr. 580.) The actual additional energy efficiency savings realized, from launch to May 15, 2013, has been less than one percent of the overall REP goals for kWh and less than five percent of overall REP goals for therms. (*Id*.)

This has happened despite IPL's best attempts to position the REP as an incentive to customers to adopt high levels of energy efficiency first, prior to the installation of renewable energy technologies. For example, IPL:

- Marketed the program with the label of Efficiency First Renewable Rebates;
- Made the level of incentives for renewables a function of customers' efforts to reduce energy use through energy efficiency by offering a standard tier and a higher energy efficiency tier of rebates;
- Capped the incentive amount based on the customers' on-site efficient energy needs; and

- Increased the payback period from two to five years to encourage additional energy efficiency savings.

(Tr. 579; see also, Docket No. EEP-08-1, Order Approving, in Part and with Conditions, Renewable Energy Program, pp. 9-10, issued April 29, 2010.)

Ultimately, it does not make sense for IPL to continue a REP which fails to meet the Board's stated goals; it does not make sense to continue a program under the auspices of energy efficiency that makes only a *de minimis* contribution, at best, to energy efficiency goals.

b. Market Transformation

Regardless of the REP's cost-effectiveness, and regardless of the incentives the REP may provide, the REP does not even appear to be needed in today's environment in which renewable installations already receive a wide variety of incentives from other sources. As acknowledged by Mr. Johnson, interest in the installation of renewable technologies remains high:

> We've seen at least two orders of magnitude increase in the interest in renewables, especially solar PV, and all of a sudden it's coming from every type of customer. It's coming from the barber shop, the pizza shop and the repairman, and it wasn't that way two years ago. It really wasn't.
>
> And now everybody's interested. [Now] everybody's doing it. And now that you have a broad universe of customers interested in renewables…

(Tr. 436.) Mr. Johnson's statement indicates that the interest in *renewables* is high, not the interest in energy efficiency. While energy efficiency may represent an ancillary benefit, it is still not meeting the point of the EEP – *Efficiency First.* This interest in renewables is occurring regardless of the existence of the REP incentives.

As commemorated during Board questioning of Ms. King at hearing:

> CHAIRPERSON JACOBS: …[H]ave the IPL renewable programs likely produced any measurable change in the technology or installation prices of renewable technology generally available to IPL customers?
>
> THE WITNESS: I don't believe it can be directly tied back to Alliant Energy's renewable energy Efficiency First program. I think there are other incentives out there in the marketplace that are driving that market transformation. For example, there's the 30 percent federal tax incentive. The state also has a 15 percent tax incentive. The USDA offers a renewable energy tax incentive of 25 percent. When you start adding those all up, I think that's what's driving the marketplace.
>
> CHAIRPERSON JACOBS: So if anything, there might be, at best, some indirect –
>
> THE WITNESS: Yes.
>
> CHAIRPERSON JACOBS: -- technologies and incentives that are things that have driven it, but not anything directly attributable to your program.
>
> THE WITNESS: I would agree with that.

(Tr. 636-637.)

Even though it is discontinuing the REP, IPL will continue, as managed and funded separately from its EEP activities, to:

- Offer general renewable information and links to online self-assessment tools, such as the Iowa Energy Center solar calculator and Iowa Solar/Small Wind Energy Trade Association (ISETA) and Iowa Renewable Energy Association (I-Renew) web sites;
- Provide a dedicated Distributed Resources and Renewable Energy Hotline team to answer renewable energy and interconnection questions;
- Provide standardized state-level interconnection agreements and processes, and power purchase agreements at alliantenergy.com/sellmypower;
- Offer customers Second Nature™, IPL's green pricing program; and
- Offer renewable tariffs such as IPL's Alternative Energy Production and Cogeneration and Small Power Production tariffs, which ensure the safety and protection of all customers under the current regulatory regime.

(Tr. 585, 586, 605, 609, 633, 634.) In other words, IPL proposes to discontinue what has proven to be an unnecessary program, but it will continue its programming to help customers evaluate customer-owned on-site renewable generation projects.

c. Cost-Effectiveness

The Environmental Intervenors have contended that IPL's REP is on the brink of cost-effectiveness. They continue to argue that IPL should continue the REP long enough to realize these results. This argument, however, is flawed in several respects:

- Achieving cost-effectiveness does not make the REP an energy efficiency-promoting program; and
- Even if it did, the Environmental Intervenors' analysis promoting cost-effectiveness is flawed.

First and foremost, cost-effectiveness has no real bearing on the REP's viability. As explained in more detail above, the issue is not with cost-effectiveness but with the program's ability to promote energy efficiency. As clearly demonstrated, the promotion of energy efficiency measures has been minimal, at best. It's important to realize that customer on-site generation itself is distinctly different from, and not part of, energy efficiency; on-site generation simply shifts the generation source rather than encourage the more efficient use of the energy. As Ms. King concisely noted:

> It's promoting an on-site generation program that's simply displacement of energy. It's just not being generated at the plant. It's being generated on site is the only difference.
>
> When you talk about classic energy efficiency measures, that's not occurring here.

(Tr. 635.)

As noted above, cost-effectiveness is neither the only nor the most prominent of the driving factors behind the REP's discontinuance. IPL's primary rationale is not that

the REP has failed cost-effectiveness tests but that the REP has failed to deliver sufficient energy efficiency savings. The issue of cost-effectiveness has always been an additional, not the driving, factor. Even if this standard did serve as the tipping point for IPL's decision, the analysis that the Environmental Intervenors has supplied is flawed.

Even if cost-effectiveness were the deciding criteria, the Environmental Intervenors' has not effectively proven any cost-effectiveness of the REP. Mr. Crandall made two specific adjustments to IPL's cost-effective analysis of the REP in order to demonstrate a trend toward cost-effectiveness for non-residential solar PV installations: 1) Adjustment of the solar PV costs from $5/watt to $3.50/watt; and 2) adjustment of the 1.8 percent equipment cost escalator first to 0 percent and then to -5 percent. Notably, Mr. Crandall only made these adjustments to the nonresidential REP. Given the results IPL realized for the residential REP, as cited in Table 3.6 of its 2014-2018 Revised EEP in Volume I, Book 1, at page 113, and as revised to include more updated information in IPL's Exhibit No. 7, IPL postulates that he ignored the residential sector because he knows that no reasonable set of adjustments could have produced cost-effective results for that sector.

As for the nonresidential REP, Mr. Crandall's adjustments neglect to recognize at least three factors: 1) the actual costs of installation (e.g., equipment plus labor, installation costs, roof preparation, concrete padding, etc.); 2) the broad application of the escalation factor to all renewable energy technologies; and 3) the inadequate relationship between renewables' peak production times and IPL's system demand peak.

Mr. Crandall based his downward pricing adjustment on "recent price trends and near-term predictions for PV prices."[19] (Tr. 768.) However, given the context of his discussion, it appears that the $3.50/watt price he landed on was based upon "recent price trends and near-term predictions" for "commercial system cost[s]." (*Id*.) This characterization of costs fails to take into consideration the actual installed costs of PV systems. As Mrs. King noted, these costs can include a multitude of additional expenditures, including LIST. (Tr. 652-652.) While it is entirely possible that an IPL customer could self-install with little or no labor or extraneous costs, it is more likely that simple system costs do not express the full customer expense. Mrs. King conducted an analysis based on IPL's actual installed PV system costs in order to determine the actual current price/watt on IPL's system. As demonstrated by IPL's Exhibit No. 6, the nonresidential REP still failed the cost-effectiveness test by a good margin.

While admittedly a less significant issue, Mr. Crandall did not acknowledge, when making his adjustments, that the escalation factor in the modeling addressed more than solar PV systems; the escalation factor was designed to encapsulate all renewable technology costs. (Tr. 612.) Accordingly, in performing his analysis, Mr. Crandall inadvertently altered the cost-effectiveness results of all technologies, not just solar PV.[20]

[19] While Mr. Crandall cites the DOE's pricing for 2010, he does not make clear whether he is also referencing the DOE's current pricing and projections in his determination of $3.50/watt.

[20] This is, unfortunately, indicative of the Environmental Intervenors' position on the whole in this case. They have suggested substantial economic revisions to IPL's savings targets and budget goals without performing the analyses required for the presentation of alternative plans (199 IAC 35.8(2).) They have recommended revisions that would cause $1 billion in additional costs to IPL's ratepayers without thought to the notice requirements of 199 IAC 35.4(4). While the Environmental Intervenors' intentions may be altruistic, their execution neglects the important details.

Finally, Mr. Crandall neglects to account for the coincident peak of solar PV with IPL's system requirements.[21] As clearly demonstrated in Mrs. King's rebuttal testimony, specifically in Figure 1 at page 12 (Tr. 584), solar PV peaks at a much earlier time than IPL's system load requirements. Mr. Crandall's analysis may produce a positive result with inappropriately low system costs and perfect matching of peaks, but that positive result does not reflect the realities of IPL's experience and system needs.

d. Pilot Program

IPL's REP was specifically approved by the Board and implemented as a *pilot* program; pilot programs are intended to be short-term experiments that only become permanent fixture upon demonstrable success. Pilots are created in order to gather the data necessary to determine whether a permanent program is viable. In this case, after actively promoting this program and the program's stated goals, IPL determined that the REP did not demonstrate sufficient energy efficiency savings to progress beyond the pilot stage. IPL had this opportunity to actively experiment and innovate, but unfortunately, the experiment did not produce the desired results. If IPL is forced to continue a pilot project despite any reasonably supportive data from the trial run, the Iowa IOUs may be hesitant to undertake additional pilots to explore other areas of experimentation and innovation.

[21] IPL acknowledges that Mr. Crandall utilized the same model that IPL did in performing its cost-effectiveness test. However, when IPL determined that even with this perfect matching of solar PV generation to IPL's system requirements could not pass a cost-effectiveness analysis, IPL declined to refine the model to reflect real-world experience. To do so would have been the very definition of beating a dead horse.

25. Whether IPL should include a program or program track targeted at data centers.

Issue No. 25 has been resolved between IPL and the Environmental Intervenors. IPL has provided an action plan with a proposed timeline outlining a timeline for researching, evaluating and implementing (if appropriate) a data center pilot through its Research, Development and Demonstration (RD&D) program, attached as Appendix 4 to the Settlement. IPL will involve interested stakeholders in the RFP development for the market potential study. Interested stakeholders will also be involved in defining the parameters IPL will use in determining in whether to move forward with the pilot. IPL and the interested stakeholders will assume a pilot will go forward unless the market study shows there is no potential.

IPL believes this is an appropriate resolution to this issue. IPL will move forward, in collaboration with interested parties, in determining via market potential study whether a data center pilot is feasible and appropriate. If it is, then IPL will move forward with another program for its customers.

The OCA, the ICEE and Deere have not taken a position on this settled term.

26. Whether IPL should include behavioral programs, such as OPower.

Issue No. 26 has been resolved between IPL, the OCA and the Environmental Intervenors. In addition to the residential programming addressed in paragraph 11.C above, IPL will offer a nonresidential sustainability pilot that utilizes behavioral approaches (peer groups in similar geographic locations) to motivate energy efficient decisions. IPL believes this is an appropriate resolution to this issue.

The ICEE and Deere have not taken a position on this settled term.

V. CONCLUSION

As described in this brief, IPL has provided its 2014-2018 EEP, as modified by Settlement, which achieves the intent of the Iowa legislature: to provide an expansive, cost-effective portfolio of energy efficiency programs available to all of IPL's electric and natural gas service customers. IPL has extensive experience in providing such programming, and has received multiple awards for its efforts. IPL has contributed to the state of Iowa's high ranking on the ACEE's annual scorecard.

Every five years, IPL presents to the Board a comprehensive, cost-effective and balanced EEP, building on the lessons it has learned from its previous EEPs, and taking into consideration the impact on its customers, who ultimately pay for the EEP's costs. IPL takes its energy efficiency responsibilities very seriously, and will continue to deliver for the benefit of its customers, and for the benefit of the state of Iowa.

IPL requests the Board accept IPL's 2014-2018 EEP, together with the settled provisions as appropriate, and allow IPL to continue its good work.

Dated this 21st day of August, 2013.

Respectfully submitted,
Interstate Power and Light Company

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